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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,402	04/03/2006	Helmut Rieder	RIEDERHETAL3PCT	5902

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COLLARD & ROE, P.C.
1077 NORTHERN BOULEVARD
ROSLYN, NY 11576

EXAMINER	
BAKER, DAVID S	

ART UNIT	PAPER NUMBER
2884	

MAIL DATE	DELIVERY MODE
03/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,402	RIEDER ET AL.	
	Examiner	Art Unit	
	DAVID S. BAKER	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6 and 8-10* is/are rejected.

7)☒ Claim(s) *5,7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/03/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott (US 3,495,086 A).

Regarding claim 1, Scott discloses an infrared detector array comprising: a plurality of IR detector elements for receiving IR signals from a communication zone (F:1-3; C:1 L:57 thru C:4 L:4); processing circuitry for deriving electric signals corresponding to the IR signals received (F:1-3; C:1 L:57 thru C:4 L:4), wherein the IR detector elements are in a matrix type arrangement (F:1-3; C:1 L:57 thru C:4 L:4) which corresponds to a matrix type segmentation of the communication zone, a maximum detector circuit selects one respective maximum output signal from among the output signals of the IR detector elements for deriving the electric signal (F:1-3; C:1 L:57 thru C:4 L:4), a threshold value forming unit that is connected to the IR detector elements (F:1-3; C:1 L:57 thru C:4 L:4), wherein the output of the threshold value forming unit is connected to the input of a comparator (F:1-3; C:1 L:57 thru C:4 L:4) whose other input is the maximum detector circuit (F:1-3; C:1 L:57 thru C:4 L:4). Further, wherein the IR

detectors' output signal lines has at least one consecutive photodiode that are interconnected by their sides facing away from the detector elements (F:1-3; C:1 L:57 thru C:4 L:4).

Regarding claim 6, Scott discloses that the diodes are connected to the threshold value forming unit (F:1).

Regarding claim 8, Scott discloses that the threshold value forming unit has a voltage divider from which the threshold voltage is applied to the input of the comparator (F:1).

Regarding claim 9, Scott discloses that the diodes are interconnected as one group to the threshold forming unit (F:1).

Regarding claim 10, Scott discloses that the diodes are interconnected by their cathodes (F:1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott (US 3,495,086 A) in view of Hochstein (US 6,573,490 B2).

Regarding claim 2, Scott discloses the claimed invention but does not disclose expressly that the receiving device comprises two separate matrix arrays of detectors where the arrays are offset in a checkerboard style. Hochstein discloses a singular mosaic-style IR detector array wherein the detector elements alternate (F:3-4). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a mosaic style detector array as taught by Hochstein as the array layout of Scott. The motivation for doing so would have been to provide dual detecting abilities for simultaneous detection thereby reducing detection time. Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to separate the mosaic into two complimentary arrays. The motivation for doing so would have been to improve the IR collimation by providing one array with a far focusing lens and the other with a near focusing lens.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott (US 3,495,086 A).

Regarding claim 3, Scott discloses the claimed invention but does not disclose expressly that the detector elements are provided in a substantially consecutive arrangement to eliminate gaps between the detectors of the array. However, at the time the invention was made, it would have been obvious to a person of ordinary skill in the

art to eliminate as much gap space as possible by abutting the active areas of the detectors in the array. The motivation for doing so would have been to increase the detector efficiency by providing a larger imaging area.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott (US 3,495,086 A) in view of Stam (US 6,593,698 B2).

Regarding claim 4, Scott discloses the claimed invention but does not disclose expressly that a common imaging lens is arranged in front of the IR detector element arrangement. Stam discloses an imaging array with focusing lens (F:11). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a focusing lens as taught by Stam to collimate IR radiation onto the detector array of Scott. The motivation for doing so would have been to focus the incident radiation to improve the signal strength of the detector.

Allowable Subject Matter

8. Claims 5 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 5, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, an IR detector array comprising: namely, the specific circuit layout claimed by the instant application where the diodes are connected to a common resistor from which the maximum IR detector elements output signal can be taken and supplied to the other input of the comparator.

Regarding claim 7, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, an IR detector array comprising: namely, the specific circuit layout claimed by the instant application where the threshold value forming unit is formed by an RC unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID S. BAKER whose telephone number is (571)272-6003. The examiner can normally be reached on MTWRF 10:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSB
/David P. Porta/

Supervisory Patent Examiner, Art Unit 2884